

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of the claims in the application.

Listing Of Claims

Claim 1 (canceled)

Claim 2(canceled)

Claim 3 (canceled)

Claims 4-10 (canceled)

11. (Previously presented) A method of fabrication of etching a low -k dielectric layer, comprising the steps of :

a) forming an organic low k dielectric layer over an insulation layer over a substrate;

b) forming a masking pattern over said organic low k dielectric layer; said masking pattern having an opening;

c) using an etch process to etch said organic low k dielectric layer through said opening to form a first opening using said masking pattern as an etch mask; said etch process comprising:

(1) in a first step, etching said organic low k dielectric layer by applying a plasma power and flowing NH_3 and H_2 etch gasses and flowing O_2 or CO gasses.

Claim 12 (canceled)

13. (Previously presented) The method of claim 11 wherein said first step comprises:

a plasma power between 500 and 1500 W, plasma power plasma density between $1\text{E}9$ and $1\text{E}11 \text{ cm}^{-3}$, a NH_3 flow between 50 and 300 sccm, a H_2 flow between 50 and 300 sccm and a pressure between 80 and 800 mTorr and flowing O_2 or CO gasses.

14. (Previously presented) The method of claim 11 wherein said organic low k dielectric is comprised of a material selected from the group consisting of fluorinated arylether,

1 Benzocyclobuthene (BCB), amorphous teflon, carbon doped oxides, poly arylene ether (PAE)
2 and organic Spin on materials.

3 15. (original) The method of claim 11 wherein said organic low k dielectric is comprised of a
4 material selected from the group consisting of fluorinated arylether, and poly arylene ether.

5 16. (original) The method of claim 11 wherein said organic low k dielectric is comprised of
6 carbon doped oxide.

7 17. (original) The method of claim 11 wherein said organic low k dielectric is comprised of
8 poly arylene ether (PAE).

9 18. (Previously presented) The method of claim 11 wherein said etch forms said first opening
10 through said organic low k dielectric layer; said first opening having sidewalls defined by said
11 organic low k dielectric layer; said sidewalls are substantially vertical at a angle between 87
12 and 93 degrees to the surface of the substrate; and said first step comprises:

13 a plasma power between 500 and 1500 W, plasma power plasma density
14 between $1E9$ and $1E11$ cm^{-3} , a NH_3 flow between 50 and 300 sccm, a H_2 flow between 50 and
15 300 sccm and a pressure between 80 and 800 mTorr and flowing O_2 or CO gasses.

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17 Claims 19-29 (canceled)